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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/868,664	09/26/2001	Stewart Mark Nichols	05222.00161	3001

29638 7590 10/06/2004

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CHICAGO, IL 60606

EXAMINER

BELL, MELTIN

ART UNIT	PAPER NUMBER
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2121

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/868,664

Applicant(s)

NICHOLS, STEWART MARK

Examiner

Meltin Bell

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This action is responsive to application **09/868,664** filed 09/26/2001 as well as the Specification and Amendment filed 7/9/04. Claims 1-18 filed by the applicant have been entered and examined. An action on the merits of claims 1-18 appears below.

Priority

Acknowledgment is made of applicant's claim for priority based on application 09/218,478 filed in the United States on **12/22/98**.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Cook et al* W.I.P.O. International Publication Number WO 97/44766 A1 (November 27, 1997) in view of *Zeller et al* "DDD – A Free Graphical Front-End for Unix Debuggers" (January 1, 1996).

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Regarding claim 1:

Cook et al teaches,

- (a) presenting information indicative of a goal (Fig. 4)
- (b) integrating information that motivates accomplishment of the goal (page 8, lines 1-15, "it accepts data... appropriate candidate behaviors")
- (c) monitoring progress toward the goal and providing feedback that further motivates accomplishment of the goal (page 10, lines 24-31, "A further important... student's pedagogic characteristics")
- the presentation provides a cognitive educational experience (page 5, lines 10-29, "adaptive and personalized ... concerning similar problems"; page 21, lines 1-27, "The first step ... student's interactive instruction").

However, *Cook et al* doesn't explicitly teach displaying details of the computer-implemented method and displaying the presentation as the presentation executes while *Zeller et al* teaches,

- (d) displaying details of the computer-implemented method and displaying the presentation as the presentation executes (Abstract, sentences 1-5, "The Data Display Debugger... current variable values")

Motivation – The portions of the claimed method would have been a highly desirable feature in this art for

- Interactively exploring complex data structures and low cost competitive performance (*Zeller et al*, Abstract, sentence 6, "DDD has been ... general public license")

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Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Cook et al* as taught by *Zeller et al* for the purpose of exploring complex data structures.

Regarding claim 2:

The rejection of claim 2 is similar to that for claim 1 as recited above since the stated limitations of the claim are set forth in the references. Claim 2's limitations difference is taught in *Cook et al*:

- instantiating a particular feedback model based on characteristics of a target user (page 21, lines 23-27, "In the ABI... student's interactive instruction")

Regarding claim 4:

The rejection of claim 4 is similar to that for claim 1 as recited above since the stated limitations of the claim are set forth in the references. Claim 4's limitations difference is taught in *Cook et al*:

- browsing details of an object as the presentation executes (page 23, paragraphs 2-3, "Here is a...array size explicitly")

Regarding claim 5:

The rejection of claim 5 is the same as that for claim 1 as recited above since the stated limitations of the claim are set forth in the references.

Regarding claim 6:

The rejection of claim 6 is the same as that for claim 1 as recited above since the stated limitations of the claim are set forth in the references.

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Regarding claim 8:

The rejection of claim 8 is similar to that for claim 1 as recited above since the stated limitations of the claim are set forth in the references. Claim 8's limitations difference is taught in *Cook et al*:

- tailoring feedback based on a user indicia as the presentation executes (page 109, lines 18-31, "Exemplary educational paradigms ... student performance data")

Regarding claim 9:

The rejection of claim 9 is similar to that for claim 1 as recited above since the stated limitations of the claim are set forth in the references. Claim 9's limitations difference is taught in *Cook et al*:

- presenting a tailored simulation based on a user indicia as the presentation executes (page 109, lines 18-31, "Exemplary educational paradigms ... student performance data")

Regarding claim 10:

Cook et al teaches,

- (a) a processor (page 29, lines 20-22, "A NC is...or the Internet") that runs a computer program to create the presentation
- (b) a memory that stores information under the control of the processor (page 29, lines 15-17, "student client system... a backing store")
- (c) logic that presents information indicative of a goal (Fig. 4)
- (d) logic that integrates information that motivates accomplishment of the goal (page 8, lines 1-15, "it accepts data... appropriate candidate behaviors")

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- (e) logic that monitors progress toward the goal and provides feedback that further motivates accomplishment of the goal (page 10, lines 24-31, "A further important...student's pedagogic characteristics")

- the presentation provides a cognitive educational experience (page 5, lines 10-29, "adaptive and personalized ... concerning similar problems"; page 21, lines 1-27, "The first step ... student's interactive instruction").

However, *Cook et al* doesn't explicitly teach logic that displays details of the computer program and that displays the presentation as the presentation executes while *Zeller et al* teaches,

- (f) logic that displays details of the computer program and that displays the presentation as the presentation executes (Abstract, sentences 1-5, "The Data Display Debugger...current variable values")

Motivation – The portions of the claimed apparatus would have been a highly desirable feature in this art for

- Interactively exploring complex data structures and low cost competitive performance (*Zeller et al*, Abstract, sentence 6, "DDD has been ... general public license")

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Cook et al* as taught by *Zeller et al* for the purpose of exploring complex data structures.

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Regarding claim 11:

The rejection of claim 11 is similar to that for claim 10 as recited above since the stated limitations of the claim are set forth in the references. Claim 11's limitations difference is taught in *Cook et al*:

- logic that instantiates a particular feedback model based on characteristics of a target user (page 21, lines 23-27, "In the ABI...student's interactive instruction")

Regarding claim 13:

The rejection of claim 13 is similar to that for claim 10 as recited above since the stated limitations of the claim are set forth in the references. Claim 13's limitations difference is taught in *Cook et al*

- logic that browses details of an object as the presentation executes (page 23, paragraphs 2-3, "Here is a...array size explicitly")

Regarding claim 14:

The rejection of claim 14 is the same as that for claim 10 as recited above since the stated limitations of the claim are set forth in the references.

Regarding claim 15:

The rejection of claim 15 is the same as that for claim 10 as recited above since the stated limitations of the claim are set forth in the references.

Regarding claim 17:

The rejection of claim 17 is similar to that for claim 10 as recited above since the stated limitations of the claim are set forth in the references. Claim 17's limitations difference is taught in *Cook et al*:

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- logic that tailors feedback based on a user indicia as the presentation executes (page 109, lines 18-31, "Exemplary educational paradigms ... student performance data")

Regarding claim 18:

The rejection of claim 18 is similar to that for claim 10 as recited above since the stated limitations of the claim are set forth in the references. Claim 18's limitations difference is taught in *Cook et al*:

- logic that presents a tailored simulation based on a user indicia as the presentation executes (page 109, lines 18-31, "Exemplary educational paradigms ... student performance data")

Claims 3, 7, 12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Cook et al* in view of *Zeller et al* and further in view of *Hayes et al* USPN 5,170,464 "Method for rolling back an expert system" (December 8, 1992).

Regarding claim 3:

Cook et al teaches,

- (a) presenting information indicative of a goal (Fig. 4)
- (b) integrating information that motivates accomplishment of the goal (page 8, lines 1-15, "it accepts data... appropriate candidate behaviors")
- (c) monitoring progress toward the goal and providing feedback that further motivates accomplishment of the goal (page 10, lines 24-31, "A further important... student's pedagogic characteristics")

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- the presentation provides a cognitive educational experience (page 5, lines 10-29, "adaptive and personalized ... concerning similar problems"; page 21, lines 1-27, "The first step ... student's interactive instruction").

However, *Cook et al* doesn't explicitly teach displaying details of the computer–implemented method and displaying the presentation as the presentation executes or receiving and analyzing user responses using an expert system to determine details of the computer program to display while *Zeller et al* teaches,

- (d) displaying details of the computer–implemented method and displaying the presentation as the presentation executes (Abstract, sentences 1-5, "The Data Display Debugger...current variable values")

Hayes et al teaches,

- receiving and analyzing user responses using an expert system to determine details of the computer-implemented method to display (Abstract, "A system and...corresponding executable state")

Motivation – The portions of the claimed method would have been highly desirable feature in this art for

- Simplifying correction of programming errors (*Hayes et al*, column 2, line 68, "It would be desirable for a"; column 3, lines 1-5, "debugger suitable for...correcting programming errors")
- Interactively exploring complex data structures and low cost competitive performance (*Zeller et al*, Abstract, sentence 6, "DDD has been ... general public license")

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Cook et al* as taught by *Zeller et al* and *Hayes et al* for the purpose of exploring complex data structures and simplifying correction of programming errors.

Regarding claim 7:

Cook et al teaches,

- (a) presenting information indicative of a goal (Fig. 4)
- (b) integrating information that motivates accomplishment of the goal (page 8, lines 1-15, "it accepts data...appropriate candidate behaviors")
- (c) monitoring progress toward the goal and providing feedback that further motivates accomplishment of the goal (page 10, lines 24-31, "A further important... student's pedagogic characteristics")
- the presentation provides a cognitive educational experience (page 5, lines 10-29, "adaptive and personalized ... concerning similar problems"; page 21, lines 1-27, "The first step ... student's interactive instruction").

However, *Cook et al* doesn't explicitly teach displaying details of the computer-implemented method and displaying the presentation as the presentation executes or capturing portions of the presentation in response to a user indicia as the presentation executes while *Zeller et al* teaches,

- (d) displaying details of the computer-implemented method and displaying the presentation as the presentation executes (Abstract, sentences 1-5, "The Data Display Debugger...current variable values")

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Hayes et al teaches,

- capturing portions of the presentation in response to a user indicia as the presentation executes (Abstract, "A system and...corresponding executable state")

Motivation – The portions of the claimed method would have been highly desirable feature in this art for

- Simplified correction of programming errors (*Hayes et al*, column 2, line 68, "It would be desirable for a"; column 3, lines 1-5, "debugger suitable for...correcting programming errors")
- Interactively exploring complex data structures and low cost competitive performance (*Zeller et al*, Abstract, sentence 6, "DDD has been ...general public license")

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Cook et al* as taught by *Zeller et al* and *Hayes et al* for the purpose of exploring complex data structures and simplifying correction of programming errors.

Regarding claim 12:

Cook et al teaches,

- (b) a processor (page 29, lines 20-22, "A NC is...or the Internet")
- (c) a memory that stores information under the control of the processor (page 29, lines 15-17, "student client system...a backing store")
- (d) logic that presents information indicative of a goal (Fig. 4)

- (e) logic that integrates information that motivates accomplishment of the goal (page 8, lines 1-15, "it accepts data...appropriate candidate behaviors")
- (f) logic that monitors progress toward the goal and provides feedback that further motivates accomplishment of the goal (page 10, lines 24-31, "A further important... student's pedagogic characteristics")
- the presentation provides a cognitive educational experience (page 5, lines 10-29, "adaptive and personalized ... concerning similar problems"; page 21, lines 1-27, "The first step ... student's interactive instruction").

However, *Cook et al* doesn't explicitly teach logic that displays details of the computer program and that displays the presentation as the presentation executes, wherein the presentation provides a cognitive educational experience or logic that receives and analyzes user responses using an expert system to determine details of the computer program to display while *Zeller et al* teaches,

- (f) logic that displays details of the computer program and that displays the presentation as the presentation executes (Abstract, sentences 1-5, "The Data Display Debugger...current variable values")

Hayes et al teaches,

- logic that receives and analyzes user responses using an expert system to determine details of the computer program to display (Abstract, "A system and...corresponding executable state"; Figs. 1, 5, 9)

Motivation – The portions of the claimed apparatus would have been a highly desirable feature in this art for

- Simplified correction of programming errors (*Hayes et al*, column 2, line 68, "It would be desirable for a"; column 3, lines 1-5, "debugger suitable for... correcting programming errors")
- Interactively exploring complex data structures and low cost competitive performance (*Zeller et al*, Abstract, sentence 6, "DDD has been ... general public license")

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Cook et al* as taught by *Zeller et al* and *Hayes et al* for the purpose of exploring complex data structures and simplifying correction of programming errors.

Regarding claim 16:

Cook et al teaches,

- (b) a processor (page 29, lines 20-22, "A NC is...or the Internet")
- (c) a memory that stores information under the control of the processor (page 29, lines 15-17, "student client system...a backing store")
- (d) logic that presents information indicative of a goal (Fig. 4)
- (e) logic that integrates information that motivates accomplishment of the goal (page 8, lines 1-15, "it accepts data... appropriate candidate behaviors")
- (f) logic that monitors progress toward the goal and provides feedback that further motivates accomplishment of the goal (page 10, lines 24-31, "A further important... student's pedagogic characteristics")

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- the presentation provides a cognitive educational experience (page 5, lines 10-29, "adaptive and personalized ... concerning similar problems"; page 21, lines 1-27, "The first step ... student's interactive instruction").

However, *Cook et al* doesn't explicitly teach logic that displays details of the computer program and that displays the presentation as the presentation executes, wherein the presentation provides a cognitive educational experience or logic that captures portions of the presentation in response to a user indicia as the presentation executes while *Zeller et al* teaches,

- (f) logic that displays details of the computer program and that displays the presentation as the presentation executes (Abstract, sentences 1-5, "The Data Display Debugger...current variable values")

Hayes et al teaches,

- logic that captures portions of the presentation in response to a user indicia as the presentation executes (Abstract, "A system and...corresponding executable state"; Figs. 1, 5, 9)

Motivation – The portions of the claimed apparatus would have been a highly desirable feature in this art for

- Simplified correction of programming errors (*Hayes et al*, column 2, line 68, "It would be desirable for a"; column 3, lines 1-5, "debugger suitable for...correcting programming errors")

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- Interactively exploring complex data structures and low cost competitive performance (*Zeller et al*, Abstract, sentence 6, "DDD has been ... general public license")

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify *Cook et al* as taught by *Zeller et al* and *Hayes et al* for the purpose of exploring complex data structures and simplifying correction of programming errors.

RESPONSE TO APPLICANTS' AMENDMENT REMARKS

Drawings, Specification

Applicant(s) argue(s) that Fig. 2 is not modified because of the specification amendment at page 3, line 40 deleting reference to item 234 and that the amendments to page 3, line 32 to page 4, line 12 are consistent with what is shown in Fig. 2, items 230, 250, 270, 240, 242 and 238 (Amendment REMARKS page 7, paragraphs 4-6).

The amendments to the specification have been entered and examined. The objections to the specification and drawings are withdrawn.

Claim Objections

Applicant(s) argue(s) that amended claims 1-10 and 12 overcome the grounds for objection in the prior office action (Amendment REMARKS page 7, paragraph 8 and

page 9, paragraph 1). Applicant's arguments have been fully considered and are persuasive. The objections to claims 1-10 and 12 have been withdrawn.

Claim Rejections - 35 USC § 101

Applicant(s) argue(s) that amended claims 1-2 are directed to statutory subject matter (Amendment REMARKS page 8, paragraph 2). Applicant's arguments have been fully considered and are persuasive. The 35 USC 101 rejections of claims 1-2 have been withdrawn.

Claim Rejections - 35 USC § 103

Applicant(s) argue(s) that Zeller "DDD – A Free Graphical Front-End for Unix Debuggers" and Cook WO 97/44766 do not disclose or even suggest the feature of displaying details of the computer-implemented method and displaying the presentation as the presentation executes, wherein the presentation provides a cognitive educational experience (Amendment REMARKS page 8, paragraph 3).

Applicant's arguments have been fully considered but they are not persuasive. Zeller meets the feature of displaying details of the computer-implemented method and displaying the presentation as the presentation executes limitation in the Abstract ("Complex data structures can be explored incrementally and interactively, using automatic layout if preferred") while Cook meets the presentation provides a cognitive educational experience limitation on page 5, lines 10-29 ("adaptive and personalized ... concerning similar problems") and page 21, lines 1-27 ("The first step ... student's

interactive instruction"). Furthermore, the Abstract of Zeller provides low cost competitive performance as the purpose and motivation for modifying Cook as taught by Zeller.

As set forth above with regards to Cook, Zeller and Hayes, the items listed explicitly and inherently teach each element of the applicants' claimed limitations. Applicants have not set forth any distinction or offered any dispute between the claims of the subject application, Cook's AGENT BASED INSTRUCTION SYSTEM AND METHOD, Zeller's DDD – A Free Graphical Front-End for Unix Debuggers and Hayes' Method for rolling back an expert system.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- *Campbell et al*; US 6058387; Dynamic information architecture system and method

Any inquiry concerning this communication or earlier communications from the Office should be directed to Melvin Bell whose telephone number is 571-272-3680. This Examiner can normally be reached on Mon - Fri 7:30 am - 4:30 pm.

If attempts to reach this Examiner by telephone are unsuccessful, his supervisor, Anthony Knight, can be reached on 571-272-3687. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MB / *mu. a*


Anthony Knight
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